



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/806,873	04/03/2001	Alan Gary Blahey	P1998J096	6495

27810 7590 09/22/2003

EXXONMOBIL RESEARCH AND ENGINEERING COMPANY

P.O. BOX 900

1545 ROUTE 22 EAST

ANNANDALE, NJ 08801-0900

EXAMINER

TOOMER, CEPHIA D

ART UNIT

PAPER NUMBER

1714

DATE MAILED: 09/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/806,873

Applicant(s)

BLAHEY ET AL.

Examiner

Cephia D. Toomer

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-6 and 9-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-6 and 9-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 18, 2003 has been entered.
2. This Office action is in response to the amendment filed July 18, 2003 in which claims 1 and 6 were amended.
3. The rejection of the claims under 35 USC 112, first paragraph is withdrawn in view of the amendment to the claims.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 4-6 and 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blahey (5,726,133).

Blahey teaches a low ash natural gas engine oil and additive system comprising a lubricating oil basestock having a kinematic viscosity at 100 °C of about 5 to 16 cSt, a

Art Unit: 1714

minor amount of a detergent comprising a mixture of a low TBN alkali or alkaline earth metal salt and at least one more neutral alkali or alkaline earth metal salt, a viscosity index improver and a phenolic antioxidant (see abstract; col. 2, lines 1-11, 25-27). The first detergent has a TBN of about 250 and the second detergent has a TBN that is about half of the first detergent and the mixture contributes a sulfated ash amount of 0.1 to 0.6% (see col. 2, lines 31-67; col. 3, lines 1-9). The lubricating oil may be a mixture of hydrocrackate and solvent refined oils (see col. 3, lines 14-20, 46-58). The phenolic antioxidant is present in the composition in an amount from 0.05 to 1.5 vol.%, the viscosity index improver is present in an amount up to 15 vol % (see col. 4, lines 27-35, 58-67) and the antiwear agent is present in an amount from about 0.05 to 1.5 vol. % (see col. 4, lines 42-48). The compositions exemplified in table 1 have a KV of 13.5 at 100 °C. Blahey teaches the limitations of the claims other than the differences that are discussed below.

In the first aspect, Blahey differs from the claims in that he does not specifically teach that the basestock does not contain an oil having a viscosity of 20 cSt or higher. However, it is well settled that the omission of a component and its function from a combination is an obvious expedient if the remaining components perform the same function as before. *In re Karlson*, 136 USPQ 184; *In re Wilson*, 153 USPQ 340; *In re Marzocchi*, 173 USPQ 228.

In the second aspect, Blahey differs from the claims in that he does not specifically teach that the viscosity of the engine oil is increased to about 13.2 cSt at 100 °C. However, a prima facie case of obviousness exists where the claimed ranges

Art Unit: 1714

and the prior art do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corps v. Banner*, 227 USPQ 773 (Fed. Cir. 1985). Also, the claim language about 13.2 cSt reads on the viscosity of 13.5 cSt taught by Blahey.

6. Claims 1, 4-6, 9, 10, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (US 5,744,430).

Inoue teaches an engine oil composition which has a lower viscosity and a long lifetime (see col. 1, lines 25-41). The composition comprises a base oil having a kinematic viscosity of from 2 to 8 mm²/s at 100 °C and is selected from mineral oil (solvent refined), synthetic and mixtures thereof (see col. 1, lines 60-63; col. 2, lines 55-56; col. 3, lines 1-5); a phenol ashless antioxidant in an amount from 0.1-3% by weight (see col. 2, lines 9-10; col. 5, lines 21-65); a viscosity index improver in an amount from 1 to about 10% by weight (see col. 2, lines 15-17; col. 7, lines 3-26); an alkaline earth metal salicylate detergent having a TBN from 60 to 350 (see abstract; col. 3, lines 54-57). The salicylate may be neutral or overbased (col. 3, lines 17-24). This teaching in view of *In re Kerkhoven*, 205 USPQ 1069 (CCPA 1980) (MPEP 2144.06) (combining two components each having the same function) suggests a mixture of the two salicylates. Inoue also teaches that the composition contains from 0.1-15 % antiwear agents (see col. 9, lines 59-65; col. 10, lines 27-28). Inoue teaches the limitations of the claims other than the differences that are discussed below.

Inoue fails to teach that the base oil possesses a KV of between 9 to 13 cSt. However, a prima facie case of obviousness exists where the claimed ranges and the

Art Unit: 1714

prior art do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corps v. Banner* 227 USPQ 773 (Fed. Cir. 1985). The claimed KV of 9 cSt is close enough to the KV of Inoue's oil (8 cSt) that one skilled in the art would expect that the oils would have the same properties.

Inoue prefers to keep the viscosity of the oil of his invention in the range of 5.6 to 12.5 cSt whereas the viscosity of the oil of the present invention has a viscosity of about 13.2 cSt.

A prima facie case of obviousness exists where the claimed ranges and the prior art do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corps v. Banner* 227 USPQ 773 (Fed. Cir. 1985). The claim language about 13.2 cSt reads on Inoue's oil that has a KV of 12.5.

7. Applicant's arguments have been fully considered but they are not persuasive.

Applicant argues that Blahey teaches a multifunctional oil with the addition of the Viscosity Index Improver (VII) and that the present invention is directed to a single grade oil. Applicant argues that at least 6% of the VII is required to prepare a multifunctional oil whereas the present invention contains up to 3%. Applicant argues that Blahey never contemplated preparing a single grade oil by omitting base oils having a viscosity of 20 cSt or higher because in the single grade oils of the invention such oils are present.

Art Unit: 1714

As Applicant has pointed out, Blahey does prepare a single grade oil because the use of a VII is optional and the examples do not contain any VII. However, the examiner maintains that Blahey may have prepared a single grade oil using VII because as Blahey states at col. 4, lines 62-64, the VII may be multifunctional in that they offer secondary lubricant performance features to the oil. Therefore, the amount of VII may be optimized to obtain an oil possessing single grade oil properties.

With respect to the oils having a viscosity greater than 20 cSt, Blahey is not limited to these oils because at col. 3, lines 10-13, Blahey teaches that he prefers that the basestock oil have a kinematic viscosity at 100 °C of about 5 to 16 cSt.

Applicant argues that Blahey raises the viscosity of the oil to 13.5 cSt by the addition of viscous 1200N base oil and not by the addition of a reduced amount of VII.

As shown in Table 1, example 3©, Blahey uses only a small mount of the 1200N oil to raise the viscosity of the oil to 13.53 cSt. It is apparent from this data that in the absence of this oil the viscosity of the finished oil would be within Applicant's range.

Applicant's data have been considered but are not deemed to constitute unexpected results. There does not appear to be a significant difference in the oil composition that contains the 1200 N oil and no VII, and the oil composition that contains no 1200 N oil and VII. Also, there are no examples wherein the VII is present in less than 0.7 % and more than 0.75%.

Applicant argues that Inoue does not produce an engine oil of enhanced life because Inoue is only concerned with friction modification and not the properties Applicant discloses in the present specification. Therefore, Applicant argues that given

Art Unit: 1714

the criticality of the ranges of the components and the criticality of MoDTC in Inoue the properties of the two oils are different. Applicant argues that Inoue teaches away from the present invention because the present invention does not contain MoDTC.

The examiner maintains that the properties of the oils of the Inoue invention and the present invention are the same. The proportions of the components of the present invention are within those ranges disclosed in Inoue and the viscosity of the present oil "about 13.2 cSt" reads on the 12.5 cSt disclosed in Inoue. With respect to the present invention not containing MoDTC, Applicant's claims are open to the inclusion of MoDTC because the language "comprising" is inclusive or open-ended and does not exclude additional, unrecited elements.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 703-308-2509. The examiner can normally be reached on Monday-Friday.

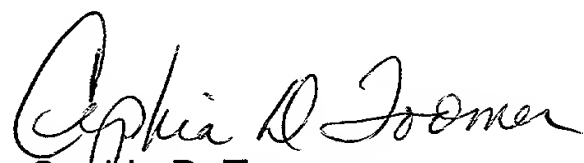
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Application/Control Number: 09/806,873

Page 8

Art Unit: 1714

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


Cephia D. Toomer
Primary Examiner
Art Unit 1714

09806873\090603